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Patent  
Attorney's Docket No. 031221-046

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

Edward F. Tokas, et al.

Application No. 09/772,157

Filed: January 29, 2001

For: Improved Fiber Substrate Adhesion and  
Coatings by Contact Metathesis  
Polymerization

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)  
) Group Art Unit: 1733

)  
) Examiner: UNASSIGNED  
)  
)  
)

INFORMATION DISCLOSURE STATEMENT  
TRANSMITTAL LETTER

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

Enclosed is an Information Disclosure Statement and accompanying form PTO-1449 for the above-identified patent application.

- ☒ [X] No additional fee for submission of an IDS is required.
- ☐ [ ] The fee of \$180.00 (126) as set forth in 37 C.F.R. § 1.17(p) is also enclosed.
- ☐ [ ] A certification under 37 C.F.R. § 1.97(e) is also enclosed.
- ☐ [ ] A certification under 37 C.F.R. § 1.97(e), and the fee of \$180.00 (126) as set forth in 37 C.F.R. § 1.17(p) are also enclosed.
- ☐ [ ] Charge \$\_\_\_\_\_ to Deposit Account No. 02-4800 for the fee due.
- ☐ [ ] A check in the amount of \$\_\_\_\_\_ is enclosed for the fee due.

The Commissioner is hereby authorized to charge any appropriate fees under 37 C.F.R. §§ 1.16, 1.17 and 1.21 that may be required by this paper, and to credit any overpayment, to Deposit Account No. 02-4800. This paper is submitted in duplicate.

Respectfully submitted,

BURNS, DOANE, SWECKER & MATHIS, L.L.P.

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Date: August 13, 2001

By: Mary B. Grant  
Mary B. Grant  
Registration No. 32,176



Patent  
Attorney's Docket No. 03172-946

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Examiner: UNASSIGNED

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TC 1700

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Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

In accordance with the duty of disclosure as set forth in 37 C.F.R. § 1.56, Applicants hereby submit the following information in conformance with 37 C.F.R. §§ 1.97 and 1.98. Pursuant to 37 C.F.R. § 1.98, a copy of each of the documents cited is enclosed.

The documents are being submitted within 3 months of the filing or entry of the national stage of this application or before the first Office Action on the merits, whichever is later, therefore no fee or certification is required under 37 C.F.R. § 1.97(b).

To assist the Examiner, the documents are listed on the attached form PTO-1449. It is respectfully requested that an Examiner initialed copy of this form be returned to the undersigned.

Respectfully submitted,

BURNS, DOANE, SWECKER & MATHIS, L.L.P.

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SHEET 1 OF 4

# INFORMATION DISCLOSURE CITATION

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 APPLICANT  
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## U.S. PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	6,020,443	Feb.2000	Woodson et al.			
	5,969,170	Oct.1999	Grubbs et al.			
	5,939,504	Aug.1999	Woodson, Jr. et al.			
	5,932,664	Aug.1999	Chen et al.			
	5,880,231	Mar.1999	Grubbs et al.			
	5,849,851	Dec.1998	Grubbs et al.			
	5,840,238	Nov.1998	Setiabudi et al.			
	5,728,785	Mar.1998	Grubbs et al.			
	5,609,962	Mar.1997	Ouhadi			
	5,539,060	Jul.1996	Tsunogae et al.			
	5,491,206	Feb.1996	Brown-Wensley et al.			
	5,342,909	Aug.1994	Grubbs et al.			
	5,312,940	May1994	Grubbs et al.			
	5,137,785	Aug.1992	Suzuki et al.			
	5,073,597	Dec.1991	Puydak et al.			
	5,069,962	Mar.1997	Okazaki et al.			
	4,902,560	Feb.1990	Silver			
	4,902,460	Feb.1990	Yagi et al.			
	4,727,215	Feb.1998	Schrock			

## FOREIGN PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						Yes	No

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

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EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						Yes	No
	00/46257	Aug.2000	WO				
	97/38036	Oct.1997	WO				
	96/23829	Aug.1996	WO				
	96/16008	May1996	WO				
	96/16100	May1996	WO				
	0 498 384	Aug.1992	EP				
	2,242,060	Jan.1999	CA				

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

Ahmed, M., et al., "A recyclable 'boomerang' polymer-supported ruthenium catalyst for olefin metathesis", *Tetrahedron Let.*, 40: 8657-8662 (Elsevier Science Ltd.) 1999.

Amoroso, D. and Fogg, D. E., "Ring-Opening Metathesis Polymerization via Ruthenium complexes of chelating Diphosphines", *Macromolecules*, 33: 2815-2818 (Published on web 03/31/2000 by Am. Chem. Soc.) 2000.

Bartz, M., et al., "Colloid-Bound Catalysts for Ring-Opening Metathesis Polymerization: A Combination of Homogenous and Heterogeneous Properties", 37(18): 2466-2468 (Agnew. Chem. Int. Ed.) 1998.

Bazan, G. C., et al., "Living Ring-Opening Metathesis Polymerization of 2,3-Disubstituted 7-Oxanorbornenes and 7-Oxanorbornadienes by  $\text{Mo}(\text{CHCMe}_2\text{R})(\text{N}-2,6\text{-C}_6\text{H}_3\text{-}i\text{-Pr}_2)(\text{O}-t\text{-BU})_2$  and  $\text{Mo}(\text{CHCMe}_2\text{R})(\text{N}-2,6\text{-C}_6\text{H}_3\text{-}i\text{-Pr}_2)\text{OCMe}_2\text{CF}_3)_2$ " *J. Am. Chem. Soc.*, 113: 6899-6907 (Am. Chem. Soc.) 1991.

Belderrain, T. R., and Grubbs, R. H., "Reaction between Ruthenium (0) Complexes and Dihalo Compounds, A New Method for the Synthesis of Ruthenium Olefin Metathesis Catalysts", *Organometallics*, 16: 4001-4003 (Am. Chem. Soc.) 1997.

Dias, E. L., and Grubbs, R. H., "Synthesis and Investigation of Homo- and Heterobimetallic Ruthenium Olefin Metathesis Catalysts Exhibiting Increased Activities", *Organometallics*, 17: 2758-2767 (Am. Chem. Soc., Publ. on Web 5/28/99) 1998.

Fürstner, A., et al., "Coordinatively unsaturated ruthenium allenylidene complexes: highly effective, well defined catalysts for the ring-closure metathesis of  $\alpha,\beta$ -dienes and diynes", *J. Chem. Soc., Chem. Commun.*, 601-602, 1999.

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## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	Hansen, S. M., et al., "A New Class of Ruthenium Carbene Complexes: Synthesis and Structures of Highly Efficient Catalysts for Olefin Metathesis**", <i>Angew. Chem. Int. Ed.</i> , 38(9): 1273-1276 (Wiley-VCH, Weinheim) 1999.
	"Improving Adhesion Between Poly(Dicyclopentadiene) and Carbon Fiber", <i>Research Disclosure</i> , 810: 34301, Nov., 1992.
	Ivin, K. J., and Mol, J. C., "Olefin Metathesis and Metathesis Polymerization", (Acad. Press) 294-330, 1997.
	Kingsbury, J. S., et al., "A Recyclable Ru-Based Metathesis Catalyst", <i>J. Am. Chem. Soc.</i> , 121: 791-799 (Am. Chem. Soc., Publ. On Web 01/15/99) 1999.
	Lynn, D. M., et al., "Water-Soluble Ruthenium Alkylidenes: Synthesis, Characterization, and Application to Olefin Metathesis in Protic Solvents", <i>Am. Chem. Soc.</i> , 122: 6601-6609 (Am. Chem. Soc., Publ. On Web. 6/30/00) 2000.
	Mohr, B., et al., "Synthesis of water-Soluble, Aliphatic Phosphines and Their Application to Well-Defined Ruthenium Olefin metathesis Catalysts", <i>Organometallics</i> , 15: 4317-4325, 1996.
	Nguyen, S. T. and Grubbs, R. H., "Synthesis and Activities of New Single-Component, Ruthenium-Based Olefin Metathesis Catalysts", <i>J. Amer. Chem. Soc.</i> , 115: 9858-9859 (Am. Chem. Soc.)1993.
	Olivan, M. and Caulton, K. G., "The first double oxidative addition of CH <sub>2</sub> CO <sub>2</sub> to a metal complex: facile synthesis of [Ru(CH <sub>2</sub> Cl <sub>2</sub> {P(C <sub>6</sub> H <sub>11</sub> ) <sub>3</sub> } <sub>2</sub> )]", <i>Chem. Commun.</i> , 1733-1734, 1997.
	Robson, D. A., et al., "(Communications to the Editor) A New and Highly Efficient Grubbs Initiator for Ring-Opening metathesis Polymerization", <i>Macromolecules</i> , 32: 6371-6373 (Am. Chem. Soc., Publ on Web 08/31/99)1999.
	Sanford, M. S., et al., "Ruthenium-Based Four-coordinate Olefin Metathesis Catalysts**", <i>Angew. Chem. Int. Ed.</i> , 39(19): 3451-3453 (Wiley-VCH, Weinheim) 2000.
	Scholl, M., et al., "Increased Ring Closing Metathesis Activity of Ruthenium-Based Olefin Metathesis catalysts Coordinated with Imidazolin-2ylidene Ligands", <i>Tetrahedron Lett.</i> , 40: 2247-2250 (Elsevier Sci. Ltd) 1999.
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	Scholl, M., et al., "Synthesis and Activity of a New Generation of Ruthenium-Based Olefin Metathesis Catalysts Coordinated with 1,3-Dimesityl-4,5-dihydroimidazol-2-ylidene Ligands <sup>5</sup> ", <i>Organic Lett.</i> , 1(6): 953-956 (Am. Chem. Soc., Pub. on Web 08/13/99)1999.
	Schwab, P., et al., "Synthesis and Applications of $\text{RuCl}_2(=\text{CHR}')\text{PR}_3)_2$ : The Influence of the Alkyliden Moiety on Metathesis Activity", <i>J. Amer. Chem. Soc.</i> , 118: 100-110 (Am. Chem. Soc.) 1996.
	Schwab, P., et al., "A Series of Well-Defined Metathesis Catalysts-Synthesis of $[\text{RuCl}_2(=\text{CHR}')(\text{PR}_3)_2]$ and Its Reactions**]", <i>Angew. Chem. Int. Ed.</i> , 34(18): 2039-2041 (VCH Verlagsgesellschaft, Weinheim)1995.
	Skeist, Ph.D., I, "Cyanoacrylate Adhesives", <i>Handbook of Adhesives</i> , 3 <sup>rd</sup> Ed., 470-476 (Chapman & Hall) 1990.
	Ulman, M., et al., "A series of ruthenium(II) ester-carbene complexes as olefin metathesis initiators: metathesis of acrylates†", <i>Tetrah. Lett.</i> , 4689-4693 (Elsevier Sci. Ltd.) 2000.
	Weck, M., et al, "Ring-Opening Metathesis Polymerization from Surfaces", <i>Polymeric Materials Science and Engineering</i> , 79: 72-75 (American Chemical Society) 1998.
	Weck, M., et al., "Ring-Opening Metathesis Polymerization from Surfaces", <i>J. Am. Chem. Soc.</i> , 121: 4088-4089, 1999.
	Weskamp, T., et al., "A Novel Class of Ruthenium Catalysts for Olefin Metathesis***", <i>Angew. Chem. Int. Ed.</i> , 37(18): 2490-2493 (Wiley-VCH Verlag, Weinheim) 1998.
	Wolf, J., et al., "Ruthenium Trichloride, Tricyclohexyl-phosphane, 1-Alkynes, Magnesium, Hydrogen, and Water-Ingredients of an Efficient One-Pot Synthesis of ruthenium Catalysts for Olefin Metathesis", <i>Angew. Chem. Int. Ed.</i> , 37(8): 1124-1126 (Wiley-VCH Verlag, Weinheim) 1998.
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